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15. (new) A procedure to leach ore and concentrates of copper on a gravel heap, comprising

the steps of:

artificially adhering the concentrate to the surface of a solid material base,

which can be an artificial material, or a stony substance, to form an agglutinate;

stockpiling the agglutinated material to form a leaching pile; and

irrigating the leaching pile with a leaching solution containing at least Cl, Cu,

and Fe ions.

16. (new) The procedure according to claim 15, wherein the agglutination stage comprises

the steps of simultaneously mixing:

the gravel of size typically no greater than 3/4 inch with a copper concentrate

in a weight fraction up to 20 %;

in the agglutination stage, adding a calcium chloride solution, containing 22 to 250 grams of chloride per liter of solution, in a proportion of 5 to 250 kilos of calcium chloride per ton of concentrate;

in the agglutination stage, adding a second solution containing sulfate ion, in a proportion of 5 to 70 kilos of sulfate per ton of agglutinate; and

wherein the final agglutinate has a moisture content between 35 to 130 kilos per ton of base material.

17. (new) The procedure according to claim 16 wherein the gravel size is no greater than  $\frac{1}{2}$  inch.
18. (new) The procedure according to claim 16 wherein the gravel size is no greater than  $\frac{3}{8}$  inch.
19. (new) The procedure according to claim 16 and further including the step of adding a water flow to the final agglutinate in order to get a moisture content between 35 to 130 kilos per ton of base material.
20. (new) The procedure according to claim 16, wherein the calcium chloride solution is prepared with a type of water selected from the group consisting of pure water, industrial water, treated sewage water, sea water and saline water.
21. (new) The procedure according to claim 16, wherein the solution containing the sulfate ions is sulfuric acid, with a concentration in weight ranging from 14 to 98%.
22. (new) The procedure according to claim 16, wherein said gravel are formed by a material selected from the group consisting of an ore or barren material, discarded ore or rock, gravel, leaching gravel and pebble.
23. (new) The procedure according to claim 16, wherein the concentrate is replaced by a material selected from the group consisting of a copper tailing, a copper precipitate and any other dusty material containing copper values.

24. (new) The procedure according to claim 16, wherein the concentrate comprises at least one of chalcocite, coveline, bornite and chalcopyrite, copper species.
25. (new) The procedure according to claim 16, wherein the gravel pile contains copper ores as at least one of oxide and sulphide.
26. (new) The procedure to leach copper concentrates on a gravel pile, non-flooded heap, according to claim 16, and further including the steps of:
- letting a pile composed of the copper concentrates agglutinated on the gravel pile rest for a period ranging from 15 to 90 days;
  - leaching the pile with a leaching solution, at a flow rate of 5 to 100 lt/m<sup>2</sup>hr for a period ranging from 50 to 300 days; and
  - washing the pile at a flow rate of 5 to 100 lt/m<sup>2</sup>hr for a period ranging from 1 to 30 days, once the leaching stage has finished.
27. (new) The procedure according to claim 26 wherein the leaching solution contains between 0.5 and 10 g/lt of copper, between 50 and 120 g/lt of chloride, and 5 to 25 g/lt of equivalent sulfuric concentration.
28. (new) The procedure according to claim 26, wherein the leaching solution is formed from intermediate solutions of the process.
29. (new) The procedure according to claim 26, wherein part or all of the chlorine of the leaching solution is contributed by the calcium chloride added in the agglutination stage.
30. (new) The procedure according to claim 26, wherein the washing solution is selected from the group consisting of pure water, industrial water, sea water and raffinate solution.

31. (new) The procedure according to claim 30, wherein the raffinate solution contains between 0 and 1 g/l of copper, between 60 and 130 g/l of chloride, and 10 to 40 g/l of equivalent sulfuric acid concentration.